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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,092

07/07/2003

Koji Kawano

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07/17/2008

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Reston, VA 20191

EXAMINER

INGVOLDSTAD, BENNETT

ART UNIT

PAPER NUMBER

2623

NOTIFICATION DATE

DELIVERY MODE

07/17/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JKEATING@KBIPLAW.COM

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<b>Office Action Summary</b>	<b>Application No.</b> 10/615,092	<b>Applicant(s)</b> KAWANO ET AL.	
	<b>Examiner</b> BENNETT INGOLDSTAD	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Miscellaneous***

1. Please note that the examiner of record for this application has changed.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 April 2008 has been entered.

### ***Response to Arguments***

3. Applicant's arguments filed 22 April 2008 regarding the rejections using the Matsuura '023 reference are moot in view of the new rejections using the Matsuura '803 reference.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Matsuura (US 6751803).

Claim 1: AAPA teaches a CATV tuner, comprising:

an input circuit connected to an input terminal for transmitting and receiving a signal to and from a CATV station, the input circuit including an upstream-signal input terminal, a distributor, [...], an amplifier, and a downstream-signal output terminal [Figs 4-5];

a first mixer circuit for mixing an output signal from the input circuit and a first local-oscillation signal so as to generate a first IF signal (element 4 [Fig 4]);

a first oscillation circuit for transmitting the first local-oscillation signal to the first mixer circuit (element 5 [Fig 4]);

a first IF circuit for processing the first IF signal (element 6 [Fig 4]);

a second mixer circuit for mixing an output signal from the first IF circuit and a second local-oscillation signal so as to generate a second IF signal (element 7 [Fig 4]); and

a second oscillation circuit for transmitting the second local-oscillation signal to the second mixer circuit (element 8 [Fig 4]); and

a second IF circuit for processing the second IF signal (element 9 [Fig 4]);

wherein at least one upstream signal is input to the upstream-signal input terminal so as to be transmitted to the CATV station (via upstream signal input 11

[Fig 5]), the distributor distributes a reception signal to generate at least two distributed signals (distributor 14 [Fig 5]) and transmits one of the distributed signals to the downstream-signal output terminal as a downstream signal so that the downstream signal is output therefrom (terminal 15 [Fig 5]); and

the distributor is arranged between the upstream-signal input terminal of the input circuit and the first mixer [AAPA Spec pg. 2, para 3].

AAPA discloses that the amplifier 16 is outside of the tuning circuit instead of between the distributor 14 and the terminal 15 as claimed, and AAPA does not disclose a low pass filter as claimed.

Matsuura discloses a branch circuit similar to AAPA's 14-15-16 branch [AAPA Fig 5] wherein "the amplifier is arranged between the distributor and the downstream-signal output terminal so as to amplify the downstream signal" (amplifier 5/6 is between the distributor 2 and output terminals 12/14 [Matsuura Fig 1]), and "the low-pass filter is arranged between the distributor and the amplifier so as to remove a CATV signal having a frequency that is higher than a predetermined upper limit frequency of the downstream signal" (band pass filter 4 comprises a 300MHz low pass filter located between distributor 2 and amplifier 5/6 for removing unnecessary signal components [Matsuura Fig 1, col. 6, l. 1-11]).

It would have been obvious to modify AAPA's branch to be similar to Matsuura's branch, thus moving the amplifier and adding a low pass filter for the

purpose of removing unwanted frequency components before amplifying the signal [Matsuura col. 6, l. 1-11].

AAPA in view of Matsuura teaches:

2. A CATV tuner according to Claim 1, further comprising a high-pass filter arranged between the distributor and the amplifier so as to block the upstream signal (BPF 4 comprises a 70MHz high-pass filter [Matsuura Fig 1]).

AAPA in view of Matsuura teaches:

3. A CATV tuner according to Claim 2, wherein the high-pass filter and the low-pass filter define a bandpass filter (BPF 4 [Matsuura Fig 1]).

Claim 6: AAPA in view of Matsuura does not teach a tuner case having the input circuit provided therein.

OFFICIAL NOTICE is taken that it was well known to provide a case to house a circuit in order to protect the circuit.

Therefore it would have been obvious to house the tuner circuit in a tuner case for the purpose of protecting the circuit as was well known in the art.

AAPA in view of Matsuura teaches:

7. A CATV tuner according to Claim 1, wherein an output from one end of the distributor is transmitted to the downstream-signal output terminal via the low-

pass filter and the amplifier (to output terminals 12/14 via filter 4 and amplifier 5/6 [Matsuura Fig 1]).

AAPA in view of Matsuura teaches:

8. A CATV tuner according to Claim 1, wherein an output from one end of the distributor is subjected to processing and transmitted to the first mixer circuit [AAPA Spec pg. 2, para 3].

Claim 9 is rejected as indicated in the claim 6 rejection.

AAPA in view of Matsuura teaches:

10. A CATV tuner according to Claim 1, wherein the low-pass filter functions as a matching circuit for making the downstream signal transmitted from the distributor suitable to be input to the amplifier (the output of the filter 4 is input to the amplifier 5/6 [Matsuura Fig 1]).

6. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Matsuura (US 6751803) and Shaw (US 5953043).

Claims 4 and 5: AAPA in view of Matsuura does not teach a resistor arranged between the amplifier and the downstream signal output terminal.

Shaw discloses a series resistor between an amplifier and an output terminal [Fig 1A].

It would have been obvious to use a resistor following the teaching of Shaw for the purpose of impedance matching the transmission signal [Shaw col. 3, l. 53-55].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENNETT INGOLDSTAD whose telephone number is (571)270-3431. The examiner can normally be reached on M-Th 8-6:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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/Bennett Ingvaldstad/  
Examiner, Art Unit 2623

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Supervisory Patent Examiner, Art Unit 2623